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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,564	08/17/2001	Toshinori Tanaka	Q65756	4259

7590

03/12/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

MOHANDESI, IRAJ A

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,564

Applicant(s)

TANAKA ET AL.

Examiner

Iraj A Mohandesi

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by **Daikoku US patent 6,075,305.**

Daikoku'305 discloses a dynamo-electric machine comprising; a yoke (1 column 4, line 34, Fig.1), magnetic poles (2, column 4, line 35, Fig.1) fixed in said yoke (Fig.1) ,a shaft (3, column 4, line 35, Fig.1) rotatably provided in said yoke, an armature (5, column 4, line 50, Fig.1) having a winding consisting of a plurality of coil portions Fig.3) each formed by lap-wound and wave-wound, (column 1, line 16, and column 1, line 54) a conductor between a corresponding pair of slots formed in an outer circumferential surface portion (Fig.) of a core (4, column 4, line 35, Fig.1) fixed to said shaft in such a way as to extend in an axial direction (Fig.1) a commutator (8, column 4, line 40, Fig.1, 2, 4, 6, 8) fixed to an end portion of said shaft and having a plurality of segments (9 column 4, line 45, Fig.2, 4, 6) to which lead parts of both end sections of said coil portions are electrically connected (see Fig.1, 2, 4) and brushes (7, column 4, line 37, Fig.1) made to respectively abut against the surfaces of said segments of said commutator (see Fig. 1) inherently n is a common divisor of the number of the magnetic poles and the number of the slots and

equal to or more than 2 of said coil portions are parallel-connected between said segments (see connection in Fig. 2,3 and see column 3,line 38 since the commutator segments have the same electrical potential the connection must be parallel) ,the coil portions are disposed in such a manner as to be symmetrical (Fig. 1) with respect to a mechanical angle of 360 degrees, wherein lead parts of said coil portions other than one of said coil portions, which is nearest in a circumferential direction to each of said segments (see Fig. 1,2,4 6) in a same circumferential direction,coil portions are electrically connected, and brushes made to respectively abut against the surfaces of said segments of said commutator, wherein said lap-wound coil portion and said wave-wound coil portion, the respective of which have lead parts to be connected to a same one of the segments, are disposed in such a manner as to be symmetrical with respect to a mechanical angle of 360 degrees3. an equalizer (6,column4,line,65 ,Fig.1,2,3,4,5) connecting said segments that are to be at equal electric potential. (see column 1,line 24,and column 3,line 38 the segments have the same electrical potential) the conductor is an enamel-coated wire (column4,line 50,) the dynamo-electric machine is inherently a motor for use in an electric power steering system.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Daikoku'305**.

Daikoku'305 discloses a dynamo-electric machine comprising; a yoke (1 column 4, line 34, Fig. 1), magnetic poles (2, column 4, line 35, Fig. 1) fixed in said yoke (Fig. 1) , a shaft (3, column 4, line 35, Fig. 1) rotatably provided in said yoke, an armature (5, column 4, line 50, Fig. 1) having a winding consisting of a plurality of coil portions Fig. 3) each formed by lap-wound and wave-wound, (column 1, line 16, and column 1, line 54) a conductor between a corresponding pair of slots formed in an outer circumferential surface portion (Fig.) of a core (4, column 4, line 35, Fig. 1) fixed to said shaft in such a way as to extend in an axial direction (Fig. 1) a commutator (8, column 4, line 40, Fig. 1, 2, 4, 6, 8) fixed to an end portion of said shaft and having a plurality of segments (9 column 4, line 45, Fig. 2, 4, 6) to which lead parts of both end sections of said coil portions are electrically connected (see Fig. 1, 2, 4) and brushes (7, column 4, line 37, Fig. 1) made to respectively abut against the surfaces of said segments of said commutator (see Fig. 1) inherently n is a common divisor of the number of the magnetic poles and the number of the slots and equal to or more than 2 of said coil portions are parallel-connected between said segments (see connection in Fig. 2, 3 and see column 3, line 38 since the commutator segments have the same electrical potential the connection must be parallel) , the coil portions are disposed in such a manner as to be symmetrical (Fig. 1) with respect to a mechanical angle of 360 degrees, wherein lead parts of said coil portions other than one of said coil portions, which is nearest in a circumferential direction to each of said segments (see Fig. 1, 2, 4, 6) in a same circumferential direction, coil portions are electrically connected, and brushes made to respectively abut against the surfaces of said segments of said commutator, wherein said lap-wound coil portion and said wave-

wound coil portion, the respective of which have lead parts to be connected to a same one of the segments, are disposed in such a manner as to be symmetrical with respect to a mechanical angle of 360 degrees³, an equalizer (6,column4,line,65 ,Fig.1,2,3,4,5) connecting said segments that are to be at equal electric potential. (see column 1,line 24,and column 3,line 38 the segments have the same electrical potential) the conductor is an enamel-coated wire (column4,line 50,) the dynamo-electric machine is inherently a motor for use in an electric power steering system.

How ever **Daikoku'305** teaches all limitation of the claimed invention except only, the number of segments are 22 and 4 poles.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select 22 segments and 4 poles, since it has been held that where the general condition of a claim are disclosed in the prior art, discovering an optimum or workable ranges involves only routine skill in the art. In re Aller,105 USPQ 233.

Communication

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandesi whose telephone number is (703)305-3242. The examiner can normally be reached on M-F.

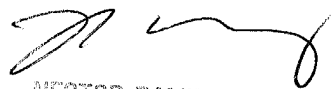
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.

IM
March 10, 2003



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800